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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,763	12/28/2001	Alex Horng	HORN3083/EM	4313

7590 01/20/2004

Bacon & Thomas  
625 Slaters Lane-4th Floor  
Alexandria, VA 22314

EXAMINER

SMITH, JULIE KNECHT

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/028,763

Applicant(s)

HORNG ET AL.

Examiner

Julie K Smith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Withdraw of Finality***

1. The finality of the final office action, mailed 9/29/03 is withdrawn and prosecution on the merits is reopened in view of the newly discovered reference to Muto et al.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Muto et al. (4,571,011). Regarding claim 1, Muto et al. discloses a bearing comprising a shaft seat (29) having a bearing (5) provided therein, and a rotation shaft (4) rotatably mounted in the bearing, the improvement comprising an elastic race (22) formed with a hole fitting tightly on the rotation shaft, located above the bearing (see fig. 2), for rotation with the shaft, and a circumferential edge of the race is in contact with the inner wall of the shaft seat.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muto et al. as applied to claim 1 above, and further in view of Shy (6,024,496). Muto et al. discloses a bearing assembly, as claimed, but lacks an annular groove for connecting a snap member. However, Shy teaches a rotating shaft having an annular groove (17) for holding a snapping connection of a snap member (21).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bearing of Muto et al. with the teachings of Shy so as to secure the shaft within the bearing and prevent it from becoming detached.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muto et al. as applied to claim 1 above, and further in view of McInerney (4,613,288). Muto et al. discloses a bearing as claimed, but lacks a washer. However, McInerney teaches a washer (85) mounted on a rotation shaft (78) between a race (87) and a bearing (82).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the bearing of Muto et al. with the washer, as taught by McInerney, to reduce friction during rotation and to further seal the bearing so as to prevent oil or dust from entering the bearing.

7. Claims 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muto et al. as applied to claim 1 above, and further in view of Lowe (3,359,048).

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Regarding claims 4-8, Muto et al. comprises a bearing, but the bearing lacks the specific shape, as claimed. However, Lowe teaches a bearing wherein the thickness of the mediate portion of the race is gradually tapered toward the circumferential edge of the race (see fig. 1) and mounted on an edge of the mediate portion of the race in an annular manner.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bearing of Muto et al. with the teachings of Lowe so as to provide a more effective seal against dust and oil.

***Response to Arguments***

8. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

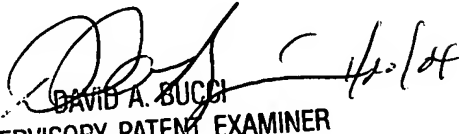
***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie K Smith whose telephone number is 703-305-3948. The examiner can normally be reached on Monday-Friday, 8-5:30, (Every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Bucci can be reached on 703-308-3668. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9326.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

JCS  
Jks  
January 16, 2004

  
DAVID A. BUCCI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600